

QUALITY OF NET INTEREST INCOME OF INDONESIAN BANKS LISTED WITH INDONESIAN STOCK EXCHANGE DURING 2003-2006

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The aim of this study is to determine the quality of net interest income recognized by Indonesian banks listed with the Indonesian Stock Exchange. The quality of net interest income is measured by its relationship with current cash flow from operation (CFO) and next year's CFO. The findings indicate that net interest income is related to current operating income, related to current CFO, and related to next year's CFO. These findings indicate that Indonesian banks listed with the Indonesian Stock Exchange report a high quality net interest income because they seemed to turn into cash flow from operation.

Keywords: Earning quality, accrual quality, net interest income, net interest margin, banks.

INTRODUCTION

Information is needed in any decision-making process. Prudent decision-makers will actively search for additional information that would enable sound decisions. Information will only be useful if it is relevant for decision-making, such as, revise prior expectation and/or useful for prediction.

Financial statement is one source of information for anyone needing to make decisions related to a specific firm. Net interest income is a financial statement information (an account) showing the amount of interest net of related expenses recognized by firms. Net interest income is mostly recognized by banks since it represents one of their major sources of revenue.

Net interest income will only be relevant information for decision-making if it could be used to revise expectation of information user or if it could be used for predication. The use of accrual basis in financial statement preparation provides management with room to window-dress financial statement. However, the use of accrual basis in financial statement could also be used responsibly to signal future performance, such as potential cash to be generated from operation. Thus, net interest income is of good quality if it becomes cash flow from operation (CFO) and/or if it can be used to predict future CFO.

This paper investigates the quality of net interest income recognized by Indonesian banks listed with the Indonesian Stock Exchange. The quality of net interest income is determined by measuring its relationship with current CFO and future CFO.

Research Question

This study aims to determine the quality of recognized net interest income among Indonesian banks that are listed with the Indonesian Stock Exchange during the period

2003 to 2006. Specifically, this study aims to find answers to the following questions: Is net interest income related to banks' operating income? Is net interest income related to banks' CFO? Is net interest income related to banks' future CFO?

Significance of the Research

The result of this study will provide empirical evidence regarding the quality of recognized net interest income among Indonesian banks. The quality of net interest income and, therefore, its accrual practice, is determined by its ability to be converted into CFO. Thus, by observing the relationship between net interest income and both operating income and CFO, the quality of recognized net interest income and, thus, the quality of accrual practice, among Indonesian banks can be determined.

Literature Review and Hypotheses

Related Theories and Studies. Decision makers face complicated tasks of making decisions in the middle of uncertainties and, therefore, prudent decision makers continue to seek relevant information that can help them make effective decisions (Scott, 2006). Information will be useful only if it can be used by decision makers to make effective decisions.

Financial statement is one of many sources of information that is useful to decision makers. The Indonesian accounting authority, Ikatan Akuntan Indonesia (IAI) (2007) states that the objective of financial statement is to provide information about firms' financial position, performance, and flow of cash and its equivalent and to assess the timing and uncertainty of the flow of cash and its equivalent that is useful for the majority of financial statement users in making economic decisions. Furthermore, to be useful, financial statement information should be able to predict future cash flow, particularly, its timing and

uncertainty (Belkaouhi, 2000; Ikatan Akuntan Indonesia, 2007; Scott, 2006).

Financial statement is in competition with many other sources of information, such as, financial analysts and financial news. Unless financial statement maintains its qualities, it will no longer be relevant for decision making process. Accounting authorities have been striving through decades to revise and/or introduce new standards to improve qualities of financial statements. IAI states that to be useful, financial statement should be *relevant* to the decision-making need of users and *reliable*. To be reliable financial statement should be free from material error, neutral or free from bias, represents faithfully the transactions and events it represent, presents substance over form, complete as to material items (Ikatan Akuntan Indonesia, 2007).

Accrual is one of the basic principles underlying financial statement preparation. IAI (2007) states that except for cash flow statement, all other aspects of financial statements should be prepared based on accrual principle. Under accrual principle, the effects of transactions and other events on asset, liability, equity, revenue, and expense should be recognized on occurrence and should be recorded and reported in the financial statements of the period to which they relate. Accrual principles permit, to some degree, management judgment, on the recognition of revenue. For example, the recognition of revenue may depend on managements' believe of the likelihood a transaction materializing. The existence of management judgment on revenue recognition may be beneficial as it may, in time, turn into cash flow, and, thus, have predictive ability. In this case, management may use revenue for signaling purpose (signal their belief regarding future performance of the firm). On the other hand, recognized revenue may be used by management negatively to manipulate performance to meet certain needs (Healy & Wahlen, 1999; Schipper, 1989; Stanwick & Stanwick, 2008).

Management has the motivation to manipulate performance by window-dressing financial statement. Motivation to window-dress financial statement arises due to managements' effort to maximize their own wealth before maximizing wealth of shareholders. This notion is known as agency problem which was discussed by Jensen & Meckling (1976) when they introduced the 'agency theory'. Agency theory states that shareholders hire agents (management) to manage firms on their behalf with the view that agents will maximize shareholders' wealth. However, due to utility-maximization, agents pursue the maximization of their own wealth before maximizing wealth of shareholders, thus, the existence agency problem.

Existence of agency problem and use of accrual principle may provide opportunities for managers to window-dress financial statement with the objective of maximizing their own wealth. Management may window-dress financial statement to obtain bigger bonus, improve self-image as a successful manager,

secure managerial position, or improve share price (Healy & Wahlen, 1999; Lambert, 2001; Romney & Steinbart, 2006; Stanwick & Stanwick, 2009). A manipulated financial statement do not posses the qualities of a useful financial statement. Other empirical studies have documented that management may window-dress financial statement in periods surrounding capital market transactions, such as, initial public offerings and/or mergers and acquisition, that is, to make the firm look attractive (DeAngelo, 1988; Dechow, Sloan, & Sweeney, 1996; Perry & Williams, 1994; Teoh, Welch, & Wong, 1998; Teoh, Wong, & Rao, 1998;). On other occassions, management may window-dress financial statement in periods where firm performance differs from analysts' or investors' expectation (Kasznik, 1999).

Considering one of the objectives of financial statement is to predict future cash flow, its timing and certainty, then the quality of net interest income as financial statement information that is based on accrual principle can be measured by its ability to predict cash flow (Scott, 2006). Revenue that have been manipulated many not be collected as cash and, therefore, be of low quality, thus, this study aims to ascertain the quality of net interest income recognized by banks listed with Indonesian Stock Exchange. The quality of net interest income is measured by its ability to predict cash flow. The aim of this study can be achieved by testing the following hypotheses that have been developed after reviewing related theories and literatures.

Hypotheses. The following hypotheses have been developed to help answer research questions and, thus, help achieve the aim of this paper. To answer research question one (1), 'is net interest income related to banks' operating income?' hypothesis one (1) is developed and is presented in the null form. H_01 : Net interest income is not related to banks' operating income. Hypothesis two (2) is developed and is presented in the null form to help answer the research question, 'is net interest income related to banks CFO?' H_02 : Net interest income is not related to Banks' CFO. Hypothesis three (3) is developed and is presented in the null form to help answer the research question, 'is net interest income related to banks' future CFO?' H_03 : Net interest income is not related to Banks' future CFO. The following section describes the methodology used in this study.

Methodology

Population. The population of this study are Indonesian banks listed with the Indonesian Stock Exchange (IDX), previously known as, Jakarta Stock Exchange (JSX) during the period 2003 through to 2006.

This study uses all Banks that are in the population. If there are any electronic financial statements that could not be retrieved or could not be open, these related Banks will be excluded from

observation. In total there were 84 banks included in study.

Statistical Tests. Variables used in this study are presented as follow: (1) Net Interest Income: Net interest income is taken from Income Statements of observed banks; (2) Operating Income: Operating Income is taken from Income Statement of observed banks; (3) Cash Flow From Operation (CFO): Net

cash generated from operating activities is taken from Cash Flow Statement of observed banks; (4) Future Cash Flow From Operation (FCFO): Net cash generated from operating activities in the next fiscal period is taken from Cash Flow Statement of observed banks.

Tests of the distribution of variables using Kolmogorov-Smirnov are presented in the table 1.

Table 1. Tests of Normality

Variables	Kolmogorov-Smirnov		
	Statistic	Df	Sig.
NII	0.284	84	0.000
Operating Income	0.292	84	0.000
CFO	0.254	84	0.000
FCFO	0.233	62	0.000

Tests of normality assumes that the distributions of the variables are not normal at 95% level of confidence. Observation of Kolmogorov-Smirnov test indicates that assumption of non-normality cannot be rejected for all variables since their significant values are less than 0.05. Thus, this study uses the Non-parametric Spearman Rank Correlation Model in making inferences.

The Spearman Rank Correlation formula is presented in equation one (1).

$$S_{\rho} = 1 - \frac{6 \sum_{i=1}^n d_i^2}{n(n^2 - 1)} \quad (1)$$

Where,

S_{ρ} : Coefficient of Correlation of Spearman Rho.

d_i : Difference between rank of variable X_i and variable Y_i , where, i is equal to observation 1 through to n .

n : Number of observation.

This study uses the SPSS statistical software to calculate the Spearman Rho Coefficient of Correlation, S_{ρ} , and to test whether it is equal to zero or not. Test of H_01 using Spearman Rank Correlation is expressed in the following equation,

$$S_{\rho NIIvsOI} = 0 \quad (2)$$

Where,

$S_{\rho NIIvsOI}$: Coefficient of Correlation of Spearman Rho between variable NII and OI.

H_01 will be accepted if statistical test reveals that equation two (2) is true. Acceptance of H_01 will

indicate that net interest income is not related to the variable operating income. Test of H_02 that uses Spearman Rank Correlation is expressed in the following equation,

$$S_{\rho NIIvsCFO} = 0 \quad (3)$$

Where, $S_{\rho NIIvsCFO}$: Coefficient of Correlation of Spearman Rho between variable NII and Cash Flow from Operation.

H_02 will be accepted if statistical test reveals that equation three (3) is true. Acceptance of H_02 indicates that net interest income is not related to the variable cash from operations. Test of H_03 that uses Spearman Rank Correlation is expressed in the following equation,

$$S_{\rho NIIvsFCFO} = 0 \quad (4)$$

Where, $S_{\rho NIIvsFCFO}$: Coefficient of Correlation of Spearman Rho between variable NII and future Cash Flow from Operation.

H_04 will be accepted if statistical test reveals that equation four (4) is true. Acceptance of H_04 indicates that net interest income is not related to the variable future cash from operations.

Findings and Analysis

This section presents findings of this study and its subsequent analysis. Table 2 presents Spearman Statistics and will be referred to in testing the hypothesis.

Table 2. Spearman Correlation Statisti

Variables Pair	Valid N	Spearman Correlation	Sig. at 95% level of confidence
NII and OI	84	0.939	0.000
NII and CFO	84	0.310	0.004
NII and FCFO	62	0.353	0.005

Is Net Interest Income Related to Banks' Operating Income? Test of H_01 is necessary to answer the research question, 'is net interest income related to banks' operating income?'. H_01 states that 'net interest income is not related to banks' operating income.' Referring to table 2, it appears that net interest income and operating income are significantly correlated, indicating that H_01 should be rejected. Rejection of H_01 indicates that net interest income is related to banks' operating income. Analysis of Spearman Correlation Coefficient reveals that the correlation is strong and positive; suggesting that a higher net interest income is correlated with a higher operating income.

This finding is expected and is consistent with accounting flow where majority of banks' operating income is generated through interest income.

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The question that remains is the quality of net interest income. It may be strongly correlated to operating income; however, due to the use of accrual in revenue recognition practice, net interest income may not necessarily be translated into cash flow. Answer to the second research question would provide insight into this issue.

Is Net Interest Income Related to Banks' CFO? Tests of H_02 is necessary to answer the research question, 'is net interest income related to banks' net cash flow from operation?' H_02 states, 'net interest income is not related to banks' CFO.'

Referring to Table 2, it becomes apparent that H_02 has to be rejected since net interest income and net cash flow is significantly correlated. Rejection of H_02 indicates that banks' net interest income is related to banks' net cash flow from operation. Analysis of Spearman's Correlation Coefficient reveals that there is a moderate positive correlation, indicating, an increase in net interest income is correlated with increase in cash from operation.

Both variables, net interest income and net cash flow from operation, are for current year, thus, the above findings indicates that to certain degree, net interest income that is recognized based on accrual principle, becomes net cash flow from operation for the banks' in the current year.

Is Net Interest Income Related to Banks' Future Net Cash Flow from Operation (CFO)? This study further analyze whether net interest income can be used to predict future net cash flow from operation, particularly, 1-year into the future CFO. This analysis

will indicate whether net interest income has predictive ability which also determines its quality.

Bank observation for this analysis are reduced from 84 to 62, since current data do not have CFO for 2007 that is required to test the predictive power of net interest income of banks in 2006. Thus, the year observation for this analysis is reduced to 2003 through to 2005.

Spearman correlation analysis indicates that banks net interest income has a moderate positive correlation with CFO 1-year into the future. Spearman's Correlation Coefficient indicates a moderate strength of correlation. This finding suggests that to certain extent some of current year's net interest income becomes cash from operation in the following year.

This finding suggests that current net interest income is of good quality as it has predictive value. Investors may benefit from using net interest income of banks as indicator of current cash from operation and future cash from operation.

CONCLUSION AND RECOMMENDATION

This study analyzed the quality of net interest income recognized by Indonesian Stock Exchange listed banks. Answers to the research questions indicate that net interest income recognized by banks' is of good quality, particularly, because it gets translated into current and future cash flow for the banks. This conclusion indicates that banks' do not use accrual principles in net interest income recognition practice to dress-up financial statements, particularly, operational income. Financial statement users could use the level of banks' net interest income as a signal of the banks cash flow from operation generation ability and, thus, to a certain degree, their level of solvency.

This study used an annual data to measure the quality of net interest income. It is recommended that study measure the quality of net interest income using quarterly data. Such study would be able to address issues such as 'how soon does net interest income recognized by banks become cash flow from operation?' Future study could analyze current net interest income's predictive power using CFO 1-quarter into the future, 2-quarters into the future, or 3-quarter into the future.

Further study could enlarge the population to include not only banks but firms from all industry and measures the predictive power of not net interest income but operational income.

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